WEEKLY EDITION
OF THE
AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

THOMAS G. NEWMAN,
EDITOR.

Vol. XXI. August 19, 1885. No. 33.

APICULTURAL NEWS ITEMS.

EDITORIAL AND SELECTED.

Who bides his time—he tastes the sweet
Of honey in the saltest tear;
And though he goes with slowest feet,
Joy runs to meet him, drawing near;
The birds are heralds of his cause,
And like a never-ending rhyme,
The roadsides bloom in his applause,
Who bides his time.

We regret to learn that Mr. Silas M. Locke, editor of the *Apiculturist*, has been confined to his residence for three weeks by sickness.

The Tri-State Fair will be held at Toledo, O., from Sept. 7 to 12, 1885. Dr. A. B. Mason, of Wagon Works, O., is superintendent of the apiarian department, where $212 are offered as Premiums. Send to Dr. Mason for Premium List.

In Spain, more than a century ago, a traveller speaks of an apiary he saw, which contained 5,000 colonies of bees. As there is an abundance of pasturage in that "flowery kingdom," the statement is quite probable. Some 300 years ago the Spaniards took bees to Mexico and the West Indian Islands, and laid the foundation for the immense trade, which has for about 200 years been carried on in honey and wax in the West Indies.

Bee-Keepers' National Union.—It would be well for all who think of any "pointers" for the forth-coming sheep-bees lawsuit, to send them to us for use on the trial. "In the multitude of counsel there is wisdom." All the elected officers have signified their willingness to accept the positions to which they have been assigned, and the President-elect sends the following for publication:

To the Bee-Keepers' Union:—While I appreciate the honor of being elected your President for the coming year, I should have preferred some one better fitted for the work to be performed. To the best of my ability I shall do my part to make the Union a grand success. No matter what may be our differences of opinion, we must now all work unitedly, without shirking or jealousy, for the lasting good of the pursuit—for the defense of the right. JAMES HEDDON.

We hope that every bee-keeper will now take hold of the matter, and become a member of the Union.

Thos. W. Cowan, Esq., has become the successor of the Rev. Herbert R. Peel, as editor of the *British Bee Journal*. Mr. Cowan is an educated gentleman (speaking several languages), a genial companion, and an enthusiastic and successful apiarist. He will not find the editorial chair "a bed of roses" by any means, but we wish our Britist namesake and its editor much success. A photograph of Mr. Cowan ornaments the wall just over our desk.

Shade for Hives.—W. A. Pryal, of North Temescal, Cal., states that he saw an inquiry in some of the bee-papers some time since, for a vine that would grow quickly, form shade for hives, and, at the same time, be of some merit as a honey-producer. In his climate, in the vicinity of the Bay of San Francisco, the weather is never so hot (so our correspondent states), that shade for hives is necessary; but from his experience with vines for trellises and growing in different situations in gardens, he knows of nothing better than that rapid-growing vine called *Cobœa scandens*. It grows to a large

size—has fine, dark-green foliage, and large, bell-shaped flowers, generally two inches broad and as many long. Vick's *Floral Guide* remarks: "Strong plants set out early in the spring, and in good soil, often grow 20 or 30 feet long, branching freely, and covering a large surface. Plants commence to flower when quite young, and continue in bloom until removed or killed by frost. Flowers are at first green, changing to a deep violet-blue. Put the seeds in moist earth, edge down, and do not water until the young plants appear, unless in a warm place and the earth is very dry. Care is necessary in planting seed, as it is liable to rot in the ground if too moist."

In California this vine grows much larger than it does here in the East, and, as there are no frosts to do it any great injury, it keeps on growing from year to year, and thus attains a large size.

When intended to be trained over hives, a rude trellis or arbor may be made of rough sticks—sapplings having a few straggling branches will do. Insert in the ground in rows, 8 or more feet apart. At a convenient height from the ground, fasten poles or scantling. The rows should be from 8 to 10 feet apart, and parallel. Brush, or old boards split into strips, should be laid from one scantling of one row to those of the other. Train the young vines up the upright poles, and in a short time they will have reached the top, where they will start out in all directions over the arbor and completely cover it, and some of the branches will here and there hang over the sides in festoons. Try an arbor like this, and see how pretty it is.

The flowers, we are also told by our correspondent, are rich in nectar, and a bee will have only to visit one or two of these honey chalices to obtain as much as it can conveniently carry to its sweet home. A feature about the vine is, that it is always in bloom, and sometimes it is thick with flowers.

The engraving we obtained from the seed catalogue of Mr. J. C. Vaughan, 42 La Salle street, Chicago, from whom the seed may be obtained.

The Native Bees in Cuba are the common black, imported from Spain more than a century ago. They work vigorously all the time, and, under favorable circumstances, gather lots of honey, refuting that old whim, that bees will only work in warm climates enough to supply their own demand.

The Island of Corsica produced so much honey in ancient times, that the Romans imposed on it an annual tribute of 1,000 pounds. After the revolt of the Island against the Roman Empire, the inhabitants were punished by the doubling of that tribute to Rome. This tribute, which was supplied, shows that the honey crop of that Island must have been at least 6,000,000 pounds. And to-day that Island supplies immense quantities of honey and wax to France.

Honey Dew in England.—Last year the bee-keepers of America were troubled with the so-called "honey dew." This year we are comparatively free from it, but English apiarists have a profusion of it. A correspondent in the *British Bee Journal* remarks as follows, calling it "black abomination":

In my neighborhood the oaks are completely covered with honey dew; nearly all clover honey has been spoiled with this abominable stuff; my bees collect it to the exclusion of almost every other source. It is very annoying to see large trees of lime hardly visited at all by the honey bee, while their more sensible cousins, the various species of humble bees, are collecting the pure nectar. I never remember the honey dews so heavy and abundant as this year: the liquid, in some instances, I have noticed trickles off the leaves, and literally saturates the ground beneath. I should fancy the "dew" deposited by the oak aphidæ is darker in color than that deposited by any other aphidæ. Certainly I can produce a beautiful sample of the blackest of black aphidæan honey, which is almost the color of ink. My hives are full of it.

This should be a glorious season for those ancient bee-keepers who aver that nothing beats a summer prolific in honey dews for a surplus of honey. Is there any commercial, domestic, or any other use for this black abomination?

Cleanliness of Bees.—A correspondent in *Longman's Magazine* gives the following incident showing the dislike which bees have to bad perfumery. He says some years ago there was in my father's garden, a plot of early potatoes, some distance in front of a spot where stood several hives. Early in the season the "rooks" commenced to help themselves to the potatoes, grubbing the young tubers out of the ground, and doing so much mischief that some had to be shot, and the dead body of one was impaled in the middle of the plot, as a warning and example to the rest. Soon after this, a most unaccountable fury took possession of the bees. No one dared to approach them, for they attacked and instantly put to flight every person or animal which ventured into the garden. This went on for some days with most unpleasant results, and the bees were fast becoming a nuisance in the neighborhood, when the mystery was accidentally explained. Some one happening to pass by the impaled "rook" in the evening, discovered cause of all the mischief. Every exposed part f the poor bird's body, especially about the mouth and eyes, was literally bristling with the stings of hundreds of bees, which had sacraficed themselves in a vain and senseless revenge upon its offensive presence.

QUERIES

WITH

REPLIES by Prominent Apiarists.

Waxing Kegs and Barrels.

Query, No. 100.—What is the best method of waxing honey kegs and barrels?—F. A.

G. M. DOOLITTLE says: "Have the kegs as warm as possible, by leaving them for a few hours in the sun, when from 5 to 10 lbs. of melted wax may be poured in at the bung hole. Now drive in the bung part way, and twirl the barrel so that the wax may touch all parts of the inside. Then remove the bung and let the wax out. If the wax is hot, but little will be taken by each barrel. See that the bung does not strike you when taking it out, as it will often fly with great force, if the wax is hot."

CHAS. DADANT & SON say: "Do not wax them. Buy the very best barrels or kegs, and keep them dry until you are ready to put the honey in them. Then, if they are good and the hoops are tight, they should not leak. We have had as many as 75 barrels of honey at one time, and never had any leakage, worth mentioning, except from barrels that were damp before the honey was put in, and allowed to dry afterwards."

J. E. POND, JR., replies: "Warm the barrel in the sun. Have the paraffine or wax melted; pour a small quantity of the same into the barrel; turn it over and over, and twirl it around till all the cracks are filled, then pour out the surplus and melt it over again."

G. W. DEMAREE answers: "Why not use cooperage made of soft wood which needs no waxing? Leaky kegs and barrels can never be made entirely safe by waxing them. The shrinking and swelling of the wood will break the wax, and sometimes a heavy jar, when moving the barrels, will start them to leaking. Besides, it is expensive to wax barrels, etc. Good workmen can make tight vessels, and they cost no more than leaky ones. I have used kegs for 4 years made of linden timber, without any loss from leakage. Any of the standard works on bee-culture tell how to wax barrels, but I think they should advise the use of good tight vessels that need no waxing."

PROF. A. J. COOK, Agricultural College, Mich., says: "Use soft wood, and not wax at all."

JAMES HEDDON replies: "Have the barrels and kegs dry and warm, and hoops well-driven. Pour hot wax into the bung-hole, and roll the barrel around until the wax touches all parts, and then pour it out. A barrel or keg properly made of the right kind of wood, needs no waxing; the waxing is quite expensive."

Flavor of Extracted Honey.

Query, No. 101.—What is the best plan to preserve the comb flavor of extracted honey?—A. A.

DR. C. C. MILLER replies: "Any way that will keep it thick."

JAMES HEDDON says: "Let the honey be thoroughly ripened before it is removed from the hives, and after such removal, keep it in air-tight cans, in the coldest place you can find."

G. M. DOOLITTLE answers: "Let the bees thoroughly ripen it before it is extracted."

G. W. DEMAREE says: "Leave the honey in the hive till it is thoroughly evaporated and sealed. But some of it will be thicker than the rest. Keep each grade separate. Let it stand in loosely-covered vessels, in a warm store-room, till all the air globules have disappeared; then it is ready to put up for the market or for future use. I have samples of extracted honey running back to 1876 that I think has lost but little of its original aroma."

CHAS. DADANT & SON answer: "Have it thoroughly ripe, and keep it in closed vessels, air-tight."

J. E. POND, JR., replies: "Allow it to thoroughly ripen before extracting; then keep it in a warm and thoroughly-dry repository, where there is no chance of its being affected of any other flavor."

W. Z. HUTCHINSON says: "I am not certain what is meant by 'comb flavor.' To give extracted honey a fine flavor, it must be thoroughly ripened. In my opinion, this can be best done in the hive. When extracted, it should be stored in tin or earthen vessels, and kept in a dry atmosphere that is free from odors. The scum that arises should be skimmed off, when the honey can be put into glass or tin vessels, ready for sale."

DR. G. L. TINKER replies: "Seal it up as soon as extracted, and be careful not to heat it to the boiling point of water when liquefying it. What is termed 'the water-bath' plan is the best, taking care that the water does not boil. The cans should be kept in the water until the honey becomes quite hot. A wash-boiler may be used for the purpose, or any suitable vessel. If glass jars are used, they should be placed in the water when cool, and then slowly heated. Use wood shavings in the bottom of the vessel to set the cans on."

PROF. A. J. COOK says: "We cure, or ripen, and seal tightly, and we think our extracted honey is equal to any comb honey. People will always prefer comb honey, as the comb dilutes it. A spoonful of rich extracted honey soon cloys. When eating comb honey, we get less honey at each mouthful; and so on nice, warm biscuit it remains appetizing forever. I have noticed that hearty laboring-men eat extracted honey with a relish, as do hearty children."

Do Queens Eat Pollen?

Query, No. 102.—Do bees feed pollen to the queen? If they do, why does she not have the diarrhea, seeing that she does not leave the hive for a cleansing flight like the other bees?—R. A.

G. M. DOOLITTLE replies: "I think not. She feeds herself at all times when brood is not being reared."

J. E. POND, JR., says: "All answers to the above will be entirely theoretical. For myself, I believe the bees feed the queen nothing but honey, and only so feed her when she is engaged in depositing eggs in the cells."

DR. G. L. TINKER answers: "The queen is fed, during the time of ovipositing, a large amount of introgenous food, but I am unable to say whether it is in the form of bee-bread or the milky-food fed to larval bees. The queen suffers with the bees in an affected colony, and frequently dies long before all the bees are gone."

DR. C. C. MILLER remarks: "The few times I have happened to actually see the queen in the act of voiding, the evacuation could not be distinguished from water."

G. W. DEMAREE says: "That bees feed anything to the queen but pure honey, is mere conjecture. That she will lay eggs when there is no pollen in the hive, I know to be true. That bees will exhibit every phase of normality when deprived of pollen or its substitute, except that they cannot rear brood, is pursuasive evidence that the sole use of pollen by the honey-bee is to prepare food for the young while in the larval state. So far as I have been able to see, not a single ray of light has been thrown on the use or influence of pollen in the bee-hive since the days of Aristotle."

PROF. A. J. COOK replies: "I think it very likely that the queen is fed digested pollen. We all know that she lives longer than all the bees. She certainly must have pollen, as that alone furnishes nitrogen, and all her tissues contain this element. If her food is digested for her, that shows why she may live longer."

JAMES HEDDON says: "According to the basic principle of the pollen theory, the queen must consume large quantities of nitrogen, which I have no doubt, comes from the pollen of flowers, but I think the workers have much to do with the residue of the pollen from which it comes, before the nitrogen is given to the queen. I have no absolute proof to offer, but such a belief is reasonable when we consider the great amount of animal tissue thrown off by the queen, which we are told, is '3 times her bulk and weight, in 24 hours.' It is hardly plausible that one bee takes care of all the residue from the great quantity of nitrogen necessarily consumed. Neither is it necessary that the queen takes the nitrogenous substance into her intestines. Worker bees have a fortunate instinct not to void in the hive. The queen (one bee) could be an exception to this rule and not perceptibly interfere with the economy of the hive."

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the centre of the State named: ♂ north of the centre; ♀ south; ♁ east; ♁ west; and this ♂ northeast; ♁ northwest; ♁ southeast; and ♀ southwest of the centre of the State mentioned.

For the American Bee Journal.

Cause and Prevention of Diarrhea.

DR. G. L. TINKER.

As a disorder among bees, diarrhea has several causes, which, operating in unison, produce the effect—diarrhea. In some cases one cause predominates, and in others, another. Usually cold is the primary cause, and the other causes are developed consecutively. It does not appear that any one of the causes may by itself develop the affection; for instance, thin honey and confinement in a moderately cool atmosphere may produce the mischief, in a colony, very early in the winter. Again, the stores being good, the hive small, thin-walled and insufficiently ventilated, the approach of continued severe cold develops the phenomena in order as follows: Dampness in the hive, condensation of vapor, followed by unabated chilliness of the bees, excessive consumption of food, and the ultimate causation of diarrhea from slowing up the respirations and checking the pulmonary exhalation of water.

Cold as a radical cause, however, often produces as great havoc as bee-diarrhea. It has been held that the latter is the source of more loss than all other causes of loss put together. This is a mistake, or at least it is in some winters. If the cases of spring dwindling be added to those dying of diarrhea, they will still not equal the number lost during the past winter from the direct effects of cold. We will simply observe here that the result was forced starvation; the bees being unable to reach ample stores near by. In a very large number of cases the bees starved while protecting, with a true mother's instinct, their brood. They chose to die rather than abandon it. If on the middle of last March the bees could have had one or two warm days, so that they could have brought honey into the cluster, we would not have had so great and unprecedented a mortality to record.

Seeing that great loss would occur from the continued severity of the cold (the ground was frozen nearly 4 feet deep) last March, we took occasion to note carefully the condition of over 100 colonies that died here at that time and subsequently, from spring dwindling. We found insufficient protection and badly managed ventilation in all cases. We noted especially that the bees were not confined to their hives over four weeks at a time. Up to Jan. 10, they had flights every few days, then again on Feb. 3 and 28 they had free flights, especially at the latter date when all the bees were out, and very few colonies had died. Then again March 26 all flew that were alive, but there were then hundreds of colonies in this country wrapt in the mysteries of death, and great numbers followed after, from spring dwindling that did not cease till late in May. Of course there were plenty of cases of bee-diarrhea, but I wish here to remark that it is unlikely that since the bees had a free flight as often as every 4 weeks, that the bee-bread they consumed should have been the cause of their death. Those who hold to the pollen theory have told us all along that where there were frequent flights there could be no diarrhea. Surely no accumulations of bee-bread could take place in four weeks sufficient to irritate the intestines! The pollen theorists are advancing a highly unreasonable hypothesis!

We examined minutely the discharges of the bees on every occasion of their flight. They came out of many of the hives greatly distended, but the discharges were nearly all water, while the quantity of pollen was insignificant. If the consuming of much bee-bread is a cause of bee-diarrhea, then it would be reasonable to suppose that whenever considerable accumulations of pollen husks and "nitrogenous matter" had taken place, diarrhea would invariably follow as the effect of "the cause." But I have just shown that we had the most inveterate cases here during the past winter, and yet there was not enough pollen grains in the discharges to make the matter of note. Now I can bring abundant proof that bees have been constipated with pollen husks, etc., and so burdened as to be unable to fly before evacuating, and still there was not a sign of diarrhea. How is this? Will theorists say that there are exceptions, that bees may be *sometimes* over-loaded with fecal matter without there being diarrhea? If so, the theory should point out the cause of the exceptions.

Bee-diarrhea and bee-constipation are as unlike as two distinct conditions can be; that the two have no relation to each other, by way of cause and effect, I am well convinced. From what has been said by some writers, one would think that the diarrhea of bees was little else than a discharge of bee-bread. But it is not so, in many cases at least. In all the cases I have ever seen of true bee-diarrhea, the large proportion of water was the most marked feature. Often in a few days after a good flight and exposure to severe cold, solitary bees would run out of the hive and discharge nothing but a dirty yellow-colored water. I have often witnessed simple constipation and copious semi-solid evacuations after a long period of confinement, but in these cases there was not the remarkable loss of vitality nor the spring dwindling that is sure to follow (if the colony lives till spring), as is the case where the bees become bloated with water, which fact I now look upon, occurring late in winter, as the tell-tale evidence of a fearful struggle with cold.

Bees affected with diarrhea soon become weak and sluggish, they come out of the hives slowly, often trembling, and many are unable to fly. Impaired vitality is one of the most striking features of the malady. With every cold snap many fall dead from the combs. If the colony survives till spring, a single cold night will cause many to fall, but a week of moderate cold and confinement will cause handfulls to fall from the combs. Often their wings and legs drop off in falling, or soon afterwards, so that they appear to be almost decayed before they die. If the colony lives on into May, they are soon unable to care for their brood, they continue to fall dead on the bottom-board or fly out to return no more. About this time, or shortly before, the queen dies when none are left but a few handfuls of young bees that appear every day on the alighting-board *en masse* to enjoy the gorgeous sunshine! This is spring dwindling.

The cause of bee-diarrhea rests on far different grounds than that set forth by the pollen theorists. In fact we do not now regard pollen or bee-bread to be even a factor in the causation, unless it shall be established that its consumption by the bees affords a special nidus for the development of putrefactive germs. We can understand how the germs may be developed, how that the bees having suffered a great loss of vitality from long struggling with cold, extensive germ development becomes possible. In this case *cold* is still the primary cause, as I have so long contended. Germ development in man or animal is invariably restrained by a vigorous vital organism. If bees can be protected so as to sustain their vitality, there need be no fears from this source. But even here the successful prevention of diarrhea must turn on other measures than the taking of their natural stores and substituting sugar syrup. So long as there are instances of the most perfect and satisfactory wintering on the natural stores in the very midst of those localities where many have fed sugar syrup and lost all or a part, we may feel sure that when we understand the matter fully, we shall be glad if we can always have sufficient of the natural stores to winter upon. Again, the results of the past winter have finally set at rest that specious and alluring argument that the pollen of one locality is any more hurtful, either from quantity or quality than that of any other.

We account for the watery accumulations on the humidity theory, and as many may not fully understand it, we will give our version of it. The animal heat of bees is developed almost wholly in the process of the oxygenation of the hydro-carbons

(honey and sugar) in the blood. It is increased by exercise as in other animals. In winter confinement bees raise the temperature of the cluster when necessary by accelerating the respiration, and in some instances it seems probable that they flit their wings and restlessly move over and about each other. Now, the natural respirations of the honey-bee at rest on a warm day are about 200 per minute. On the approach of cold they begin to respire more slowly, and necessarily develop less heat. Those on the outside of the cluster in winter do not breathe over 40 tlmes a minute, and many of them not over 20. Inside of the cluster I have not been able, of course, to count the respirations, but they are certainly slower than in summer time.

In this connection I have a few words to say about hibernation. To this extent and to the extent so ably set forth by the Rev. Wm. F. Clarke, bees hibernate, and the slow respirations and lessened development of heat are the evidences of it that are indisputable. Say what we may, bees *do* hibernate under good conditions.

The following incident will illustrate a case of hibernation: On March 26, 1885, about noon, all my colonies were flying but 4 nuclei and one fine Syrio-Albino colony in a double-walled hive. With a steel hook I raked the debris from the bottom-board, and felt satisfied they were alive. As none came out, I hooked on to the frames and shook them, but there was no stir. I then pounded upon the hive, but all was still. Some friends standing near, finally said, "Doctor, it is no use; that colony has gone up." I had began to think so myself, but kept pounding away and shaking the frames with the hook, but it was fully ten minutes before a bee appeared. It proved to be a very large and well-wintered colony. They had not a particle of upward ventilation (as was the case with most of my hives), but a very large entrance, into which the cold winds had blown so hard, at times, that I had felt very anxious about them.

The accumulations of water in the intestines of bees takes place when they are required to consume a large amount of food in order to sustain a life-heat. When it becomes very cold they are unable to maintain, in the presence of counteracting agencies, the forced, prolonged and high rate of the respirations necessary to expell or rather exhale the large amount of water produced in the oxygenation of so much food. Under the severe physical strain their vitality is early impaired, and they become less and less able to keep up a proper temperature of the cluster. They respire slower and slower, and there is less and less exhalation of water. Meantime they are eating largely, they have no kidneys, and accumulations of water must take place in the intestines. If about this time we see a bee come out of the hive to die, we perceive that it breathes only 3 or 4 times a minute, drags itself along and tells only too plainly the story of exhausted vitality. It has grown old in undue physical exertion, and can do no more.

A very damp atmosphere and thin honey are causes that favor the accumulations; the first by the prevention of free evaporation of water from the pulmonary surfaces, and the second from the taking of water in the food which must be carried off in the respirations at a time and under conditions when such exhalations are greatly impeded.

If we place an affected colony in warm quarters, so that it can dry out, it is immediately benefited, and without a flight the bloated condition of the bees is greatly relieved. On the contrary, if bee-bread were the cause, there would no benefit whatever arise from the application of heat, since "the cause" could not be removed without a flight. On no other hypothesis than the above can we satisfactorily account for all the phenomena.

If the normal temperature of the cluster can be readily maintained above that of the surrounding medium, free evaporation and the expulsion of the vapor from the immediate vicinity of the bees is accomplished, and they will be kept dry and healthy so long as a favorable temperature can be easily maintained. If now the bees are so ventilated that they will not get over-heated, they will hibernate. The principle involved here is the same as in drying out a damp, cool room. We place a fire in it, warm it up, and the dampness is expelled. In the same manner if we so prepare the bees for winter that they can maintain a temperature of 50° just over the cluster, the bees and combs and hive will keep dry, and no diarrhea will result. Take a colony on the summer stand with the brood-chamber tight on top as propolis can make it, and with the cap filled with chaff; thrust the hand down on to the frames over the cluster; if it feels sensibly warm the temperature is 50°, and the colony is wintering all right. But if cold, and it remains so long, there is danger.

We consider heat to be the only true remedy for bee-diarrhea, as it is the only reliable preventive. In my first paper on wintering (see page 7, Vol. XVIII of the BEE JOURNAL,) occurs the following passage: "Heat is life, or one of the essential conditions of life, which the instinct of the bees has taught them to carefully conserve." In making this statement I had reference both to the protection and the system of ventilation that should be given. I have nothing to add to this now, but believe more firmly than ever that on the conservation of the heat of a colony of bees will depend much of the success in the wintering of the future. I submit the following conclusions:

1. The use of pollen or bee-bread by bees in winter confinement is not detrimental to bees when they need it, and like most of the other animate beings, they need it, or its equivalent, pretty often. We consider its presence in the hive indispensable to the most successful wintering.

2. Hibernating bees winter the best; frequent flights are unnecessary.

3. Bee-diarrhea in a properly-ventilated hive, having good natural stores, does not occur unless the temperature in the hive falls so low as to condense the vapor.

4. Upward ventilation is not only against the instinct of the bees, but mismanaged (as it usually is) in allowing the ready escape of the heat from the cluster, has been a cause of incalculable loss.

5. Lower ventilation either out-doors or in-doors is the natural and proper method of ventilating bees in winter confinement; but it must be free.

6. Bees cannot be wintered here at the North on the summer stands with safety by any system of ventilation on a full set of combs in single-walled hives.

7. A large, well packed double-walled hive is perfectly safe, if its brood-chamber be contracted to 5 or 6 combs. It is safe in this locality on 10 to 12 combs. It gives the best results, but is more expensive than cellar wintering.

New Philadelphia, Ohio.

For the American Bee Journal.

A Year of Disasters.

S. I. FREEBORN.

The season of 1885 has been one of extremes, the equilibrium seems to have been destroyed by our exceptionally hard winter, and it has been impossible to tell by to-day what to-morrow would be—hail, rain, thunder, lightning and embryo cyclones have been of unusual frequency. More damage has been done by wind and hail in this county this season than in any season for 30 years.

Basswood, which is usually our corner-stone and the crowning glory of bee-keeping, has come and gone. In the war of elements only two days were our bees allowed to work uninterruptedly during its two weeks of bloom, though they worked some portions of the other twelve days. Considering the very unfavorable weather, we are very thankful for what honey we have obtained. Our report up to date is as follows: From 180 colonies we have an increase of 150 colonies, and obtained 9,500 pounds of extracted honey, with a fair prospect of getting a fall crop should the rain cease, but at present it rains every day. If this country is a fair type of the rest of the world, honey ought not to be "a drug in the market" this year.

I see Mr. Stewart is somewhat fearful of cyclones, and speaks of a tight board fence as being a protection. I built one once on the west side of my Sextonville bees. Last fall they were chaff-packed. It answered well for a protection, but proved to be too much of an air-excluder in hot weather, when the mercury was up among the nineties. As for proving a protection in the event of a cyclone, should a genuine one strike us, it would be about as good as chaff, and even Mr.

Stewart's big stones that he freights his hives down with, might take a ride and keep company with his hives in mid-air, but we hope for better luck for him and all other bee-men.

I feel like expressing my sincere thanks to my many friends in the bee-fraternity for the good things they have written of me, and for the counsel, sympathy, and assistance proffered me. I feel that I am in good company, and that bee-keeping has its joys as well as its sorrows.

Ithaca, ♀ Wis.

For the American Bee Journal.

Bee-Poison, Diarrhea, Pollen, etc.

JAMES HEDDON.

With much interest I have just read Father Langstroth's article on bee-poison. So far as I know I am the most sensitive to that poison of any of our bee-keepers. Many of the symptoms he there delineates are just the ones I suffer with when I come within the odor of the hives, especially in the after-part of the season. Droop-of the eye-lids, itching and burning about the eyes and throat, a dull, gloomy feeling, are all common symptoms with me. I may also add an intense itching far into the ears, extending through to the glands of the mouth. Some nasal symptoms similar to hay fever. Sometimes the itching sensations reach down the air-channels as low as the lungs, and it is a queer sensation to itch internally.

All these are produced without stinging. I believe that constant stinging is productive of feelings that may be termed neuralgic-rheumatism. When, for a time, I keep away from the hives, I recover from these symptoms, but upon a return, they always recur. My experience is different from Mr. L's, for I always have the most trouble when near the bees. For the past two months I have worked with the bees most of the time, and I am again suffering much from the old trouble. I have little faith that I shall ever wear out the effects of this venom. I know of others who are troubled somewhat as I am, but not to quite the same degree.

FIRST CAUSE OF DIARRHEA.

I wish to correct Mr. Stewart's statement that I claim that anything acts the part of "first cause" in the production of bee-diarrhea. "Prime cause" is not first cause. I will once more, and I hope for the last time, try to describe what I mean by "prime causes" and "adjunct causes." A prime cause will produce the effect alone; an adjunct cause will fail to so produce the effect that is only becoming a cause when in company with the prime cause.

Cold is a great adjunct-cause of fecal accumulation. It is not the prime cause, because such accumulations take place independent of cold. Pollen is the prime cause, because fecal accumulations take place with it alone without the aid of a low temperature. Cold (so to speak) cannot produce fecal accumulations alone, as I proved last winter by freezing to death nearly 100 colonies that had no fecal accumulations. If Mr. Stewart will come to the North Western Convention next October, we can each hold the other to the point, and discuss the matter without misunderstanding.

BEE-DIARRHEA AND POLLEN.

If Mr. Gresh is of the opinion that Prof. Cook thinks there is any genuine bee-diarrhea common to our bees, that does not come from pollen, I feel certain that Mr. Gresh thinks wrongly. Mr. Gresh thinks it is unjust for me not to have read a certain old article of Mr. Doolittle's. However, according to Mr. G's statement, Mr. D's old article gives no systematized summer and winter management. I mean a system of contraction that at the same time works to both summer and winter advantage. If I am in error, the records will show it; and Mr. Gresh's last few years' practice should also show it.

If Mr. Doolittle has also systematized the same management cotemporary with or prior to me, all well and good. That only adds proof to the value of the system. All I said was that, "so far as I have read, I have not seen it systematized as a summer and winter management;" and that is true.

For three seasons I have successfully practiced the contracting method for the combined purposes of crowding the bees above with their surplus to such an extent as to leave the brood-chambers in a condition to feed syrup for winter, and in a compact form for the bees and for other wintering purposes; and during all this time I have seen nothing more than fragments of the method discribed and hinted at by any one. I would like to please Mr. Gresh, but while I would be satisfying him, I might dissatisfy many others.

Dowagiac, ♀ Mich.

For the American Bee Journal.

Horticulturists vs. Apiculturists.

W. A. PRYAL.

In casually reading the July number of the *Gardner's Magazine*, I chanced to notice where a lady correspondent of that journal seemed to be in great distress about her grapes, of which she has many fine varieties, and complains that although she has tried her best, she is unable to get any fruit for table use. She attributes her loss to her neighbor's bees; he having some 12 colonies of them. She has been enclosing the bunches in paper bags, and, though the experiment is a success, still she considers it too laborious and costly to warrant its use to any great extent. She enquires of the editor if he knows of any way to prevent bees from doing her grapes further damage. To this the editor replies that he has made the bee and grape subject a special study, and he is firmly convinced that bees will destroy grapes every time, and to prevent their depredations, he advises the trapping of them.

As the editor, Prof. Mecham, is a recognized authority on the topics which he treats upon in his magazine, the above is pretty strong evidence against the "busy bee," who, the Professor thinks, is so much of a "busy body" that he breaks feloniously, so to speak, into his neighbors' grapes. All the apicultural editors and writers and bee-keepers have held otherwise, while the fruit growers and many of the horticultural writers and editors have taken the same side as the Professor, though perhaps not so emphatically.

It does really seem that the evidence against the bees is accumulating, and that in a short time the fight against bee-keepers will be commenced "all along the line," and it will be in order for apiarists to "fight it out," if it takes all—not summer; but all—the defense fund, and more too, if bee-keepers do not join the defense promptly.

We, too, have studied this question—that is, the bee and fruit controversy, but have had no experience with grapes, as they do not grow here near the Golden Gate, as the nights are a little too damp and cold. But with all kinds of small fruits and apples, apricots, cherries, pears, plums, peaches, nectarines, etc., we have had as much experience as any one in the State, and our place is run as a fruit farm, and we, and many of the folks in the vicinity, have bees—there being, perhaps, over a hundred colonies within a radius of a mile of us. We have never known a bee of its own accord to damage any of the large fruit. Our great annoyance is caused by linnets, these birds and the jays will often, in a few days, destroy hundreds of dollars' worth of cherries and apricots, to say nothing of other fruits. When the birds commence on the apricots, the bees just "sail into" them, too, and hastily suck up the rich juice of this most very excellent fruit.

The only fruit that we can accuse the bees of playing havoc with, is the raspberries. This fruit is grown by the acre on our place, and the J. Lusk Canning Co., of this place, has nearly a hundred acres of them close by. During the last two weeks there has been a scarcity of flowers, which is unusual in this section, and the bees who are proverbially known to be industrious, have to "improve each shining hour" or die—so finding plenty of ripe raspberries overflowing with juice, they make haste to gather it, which is an easy matter when the fruit is a little over ripe. Always many berries will be in this condition unless they are picked daily. Firm, ripe berries the bees do not harm. We have seen the bees swarming on the berries when they were allowed to go a day over time, or when they would ripen a little sooner than was expected, and were left for a while unpicked. All the juice would be sucked out and nothing but the pulp would remain on the stems.

CHINAMEN AND BEES.

It is interesting to see Chinamen picking berries when they are thus covered with bees. They are terribly afraid of bees, and of course the bees are not in a stinging mood when in quest of food. Chinamen do all the berry-picking hereabouts, and though they are always on the lookout for bees, still they get hold of an occasional one which resents the pressure of their fingers by giving the celestial a gentle touch with their "business end," which makes John fairly howl with pain.

We did at one time expect the Canning Company would institute proceedings against us for damage caused by our bees in damaging its crop, but it would no doubt have a hard time to prove the ownership of the bees, as so many other persons also keep them in this vicinity. We are told that at the cannery above named, which is the largest in the State, millions of bees congregate about the fruit when it is being pared and placed in the cans, preparatory to cooking; also, that the bees gather around and under the tables, boxes, barrels, etc. They are no doubt annoying to the help, many of whom are girls and women. To get rid of them, the employes turn on a jet of steam which soon kills them; but the dead bees sting all the same, and many get "put up" with the fruit.

This subject is an important one to bee-keepers, and we shall be likely to study it up and report later in the season. One thing is certain, and that is, bees do not trouble fruit when they can gather nectar from flowers. In this State other insects are far more damaging to the fruit crop than bees are.

North Temescal, Calif.

For the American Bee Journal.

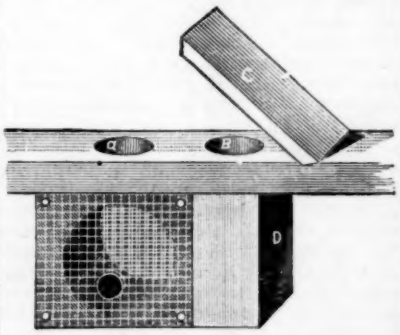
Introducing, Finding Queens, etc.

HENRY ALLEY.

There are hundreds of inexperienced bee-keepers who would purchase queens were they sure of introducing them without loss. The very nature of my queen-rearing business has led me to experiment largely in order to discover some absolutely safe method for introducing both fertile and unfertile queens without loss. At last I have a plan by which I am successful in every case. The conditions are: First, the colony to be requeened should be queenless three days, then have at hand a small wooden cage 2¼ inches long, 1½ inches wide, and ⅞ of an inch thick. With an inch bit make a hole through the cage so that the outer edge will be ⅜ of an inch from the end of the block. By so doing one end of the latter will be left solid. Now, with a ½ inch bit make two other apertures in the edge of the block; one through into the large hole, so that a queen-cell can be inserted or a queen placed in the cage, the other aperture should be made nearly through the block, and connected (by cutting out a small piece) with the large opening.

The illustration shows the arrangement. The cage is represented attached to a section of the top-bar of a brood-frame. I use these cages for hatching cells or for introducing queens. I call them the "combination nursery and introducing cage." A represents the aperture in which a queen-cell is placed. The food (sugar and honey) is placed in aperture B, to prevent the bees from injuring a cell when placed in the cage, or from eating out the food, a tin slide C or cap is provided. When a queen is to be introduced, the slide is removed from the sugar, and in the course of a few hours the bees clean out the food, and the queen is easily, quickly and successfully introduced. The hive should not be opened again for a week at least after the queen is introduced. When it is opened, remove only the centre comb, and if eggs are found in that one, you may be sure that the queen is all right, even should the queen not be seen.

One point in this connection I wish to speak about: Mr. L. C. Root is credited with the statement that a shipping cage should not be used for an introducing cage. I was much



surprised when I read the statement in the *American Agriculturist*, and could not believe that it was made by Mr. Root. In theory that statement is important, but in practice it is of no value. Many of our breeders are shipping hundreds of queens in the cages intended to be used to introduce the queen in—in which she is shipped. Very few queens are lost in this way, if the statements are correct that come to us. Queens are lost in introducing because the proper time is not allowed a colony to remain queenless before introducing a strange queen. Three days is about right. I see that Mr. James Heddon is of the same opinion. It has been my practice for 20 years to introduce no queens except as above. As to the scent, it will require but a moment to scent the new cage, queen, and the whole colony.

It will be seen that the cage described will, according to Mr. Root, be just the thing, and the difficulty he speaks of in introducing queens will be obviated entirely, as these cages remain permanently in the hive, and while the strange queen is confined in the cage, she would become thoroughly scented with the same odor that permeates the colony. If this cage is to be used to hatch queen-cells in, it may be placed near the top-bar, and apertures made in the bar to correspond with those in the cage.

Formerly in introducing qeeens we placed the cage in one of the bottom corners of the frame. The work of introducing a queen requires but a few moments. Of the hundreds of queens we introduce every month, of both fertile and virgins (many of the later are two weeks old when introduced), none are lost where the colony is left queenless three days. If introduced within 48 hours, about 25 per cent. will be lost, whether fertile or virgin queens are used.

HOW TO FIND A QUEEN IN A FULL COLONY.

Another thing deters many bee-keepers from procuring queens. It is very difficult for an inexperienced hand to find a queen in a large colony. I will give one or two methods that may please the novice. First, blow smoke in at the entrance, and drum lightly on the sides of the hive; this will alarm the bees when they will fill with honey. In the course of 8 or 10 minutes raise the honey-board or mat and examine it to see if the queen is there. I can usually find them in that way. If not found, remove the comb that can be drawn out the easiest, and examine that, and if the queen is not found, place the comb in an empty hive, and do so until all have been examined or the queen found. If not found on the combs, examine the bees in the hive. If not found there, look the combs over again, and replace them in the original hive. If after all that trouble the queen is not found, place one of Jones' bee-guards or a drone-trap at the entrance of an empty hive, and shake the bees from all the combs in front of it. The bees will all pass through the perforations in the zinc while the queen and drones will be left outside, when the queen may be easily found and caged.

The above is intended for the novice and inexperienced bee-keeper. The expert is not obliged to resort to such methods to find a queen.

In case the colony has a virgin queen (and by the way when this is the case, the expert has considerable trouble to find a queen, and the novice would experience more trouble and vexation than he would to find a dozen fertile queens), the best way to find her would be to go to some hive having a fertile queen and get about a pint of bees, and place them in the hive having the virgin queen.

In the course of an hour the virgin queen will be found (balled) with about 100 bees trying to sting her She may then be removed, and the fertile queen introduced immediately. While a fertile queen may be introduced at once to a colony from which a virgin queen was just removed, a virgin or a fertile queen cannot be introduced to a colony from which a fertile queen was just taken, except by the method above given.

If one will follow the directions and method given for introducing queens, less queens will be lost, and the cry, "My queen was introduced, but has

not laid an egg," will not be heard again. I have thoroughly tested the above method, and I can pronounce it perfection in every sense that word implies.

Wenham, Mass.

Exchange.

Swarms and Swarming.

REV. O. CLUTE.

Inexperienced bee-keepers often hail the swarms with delight. They have an impression that the more swarms they get the more prosperous they are, but the old bee-keeper looks upon this process with much less favor. If he could prevent his colonies from swarming at all, he would usually do it. If a colony swarms often it will store little surplus, and generally swarms will be only able to fill the brood-chamber. If the colony did not swarm at all, and kept its many workers storing surplus honey, the yield in a good season would be very profitable. As many bee-keepers still allow their bees to swarm, they should be prepared to take care of the swarms when they come,

Have hives and frames ready. If you have empty combs use all the good, straight worker combs for the brood-chambers of the new colonies. Watch the bees to prevent the escape of swarms, and to know from which colonies they issue. When the swarm clusters, get it into the hive in some way. The way of doing this depends on where the cluster is. If it is low down, on a tree or bush, you can often shake it into the hive, or you can shake it into a large tin pan or into a basket and pour it into the hive, or you can cut off the branch and lay it down in front of the hive or on top of the frames. If the cluster is high up, you need a ladder and a rope, etc., to get up and saw the branch off and let it down. Sometimes a long bag made of cheese-cloth, the mouth kept open by a wire hoop, fastened to the end of a long pole, can be used to advantage. It can be put up under and around the cluster, the bees shaken into it, then brought and poured into the hive.

When the bees are once fairly started into the hive, put the top on loosely so as to be sure of plenty of ventilation. As soon as all, or nearly all, are in the hive, carry it to the place where they are to be left, and set it carefully in position. Any stragglers not yet in will go back to the hive from which they issued. Sometimes, after a swarm is hived, and everything seems all right, it will issue again and leave for parts unknown. To prevent this is easy. As soon as the swarm is in its new quarters, go to another colony and take from it a frame containing eggs and unsealed brood and give it to the swarm. The bees at once begin to take care of the brood, and, getting thus the home feeling, they do not desert the hive. I have never had a swarm desert, if it had thus been given a frame of unsealed brood.

Iowa City, Iowa.

For the American Bee Journal.

Important Subjects at Conventions.

W. H. STEWART.

I have carefully read the many reports of the bee-keepers' conventions, as published in the BEE JOURNAL, and although many good thoughts are there expressed, I must say that some most important items have been overlooked or neglected—items that pertain to our common interest. Every year the important question comes up, "Where and how can we best dispose of our honey?" Many recommend that each bee-keeper should create a home market. This would answer the question in some localities where there is a dense population, and where but few bees are kept; but where there is but a sparse population, and many bees are kept, it is impossible to find a home market. Many members of those conventions have a reputation of being astute business men; and it seems to me that such men, when met in counsel, should be able to devise ways and means for the proper disposal of the surplus honey crop.

Another important item is the rates of freight on honey, and it seems to me that the united effort of those bee-masters, if turned in that direction, would accomplish much more for the fraternity than by the discussion of less important questions, such as the use of honey-boards, introduction of queens, prevention of after-swarms, reversible frames, chaff-hives, etc.; for these are matters that are treated of in all the bee-books and bee-papers, and can be determined by practical experience by all bee-keepers. There are many bee-keepers in the land who are able to solve these minor problems, and produce many tons of surplus honey, and yet when they have it put up in good marketable shape, the same most important questions come up—"What can I do with it?" "How and where can I sell it for its full and true value?"

The bee-keepers of the United States should be posted as to the demand and the prices of honey in all the markets of the civilized World. They should be as familiar with the markets of London, Paris, St. Petersburg and Rome as they are with that of New York, Cincinnati or Chicago; and also should be able to get the lowest possible rates of through freight on cars and boats.

But what is or has been the *modus operandi* at those conventions in regard to the sale of honey? We notice that on several occasions certain individuals had on exhibition large quantities of honey, and were doing their best to sell the same, and yet during the whole session very little was said or done in regard to the sales or market for bee-keepers in common. Again, these men had most likely secured low rates of freight in moving their honey to and from those conventions, but they had done little or nothing for others in that line. The idea in regard to these matters has, therefore, seemed to be "every man for himself," and a "survival of the fittest."

It is true that the BEE JOURNAL reports the price of honey in many of the cities, but not all; and then we are left to take our chances and send our products to a stranger who sells it as he thinks best, and reports also as he thinks best, and at the same time we have no means of ever knowing positively where our honey went or what price it brought. Why not have in each city a commission man chosen by the National Convention, to take charge of what honey is shipped to that market? Would it not be well for these commission men to have an understanding with each other, and so manage that honey could be shipped from one point to another to make the best sales?

Orion, Wis.

For the American Bee Journal.

My Method of Hiving Swarms.

ROBERT CORBETT.

Having read the BEE JOURNAL for years, and noticed several methods of hiving swarms, I desire to give mine.

Mr. Hutchinson (on page 437 of last year) says that his apiary is located in a young orchard of low trees, in which there are no limbs but what can be reached by means of a ladder. He speaks of his hiving implements, clothes-basket lined with cotton and covered with burlap sewed fast at one side. I also have a step ladder, a pair of heavy pruning shears to cut off branches, a fine-tooth saw for cutting large limbs, a quart dipper, a fountain pump, and two large tin-pails. When the swarm begins to cluster, Mr. H. has to see that they locate in a convenient place for basketing them. If they do not so locate, he must use his shears, and this takes time. After he has the trimming done, he brings the basket, lays the cover over on one side, places the basket close to the cluster, shakes them off the branch, drops the basket a little, throws over the cover, and secures them for the present from escape. Bees will not live in their house, if it is open, neither will they stay in his basket without being compelled to do so. Mr. H. deserves much credit for the way in which he handles the bees after getting them to the hives.

In the BEE JOURNAL of July 30, 1884, and on page 487, is an article on this subject by G. M. Doolittle, who practices the clipping of queens' wings. I have not done much hiving with the queens' wings clipped, and neither would it suit me, as I have but one hand to work with, and so I cannot hold the queen and clip her wing at the same time. The plan may be a good one, but it does not suit me. If the bees are under control, there will be no trouble, even in letting the queen have her flight with the bees.

The following is a description of my basket and pole: I take a fruit skit or basket (the basket is bell-shaped, and while occupied with fruit

the wide end is up, but when used for bees the wide end is down), and as it is made of very light material, and to strengthen it, I take a ⅜-inch board and cut it to fit in the smaller end of the basket, and drive some fine nails from the outside into the edge of the board to secure it in place. Then I bore a ⅜-inch hole in the centre through the board, and through it I insert a bolt with a loop in the top, and a burr beneath to secure it. I secure a harness strap with a double-keeper and buckle, this is run through the loop of the bolt, and through loop on snap connecting it with the basket. When double, 6 or 7 inches long, the sides of the basket having ½-inch spaces, I take my knife and cut a number of diamond-shaped holes for the bees to go through. The size of the box, when done, is 10 inches deep, 10 inches wide at the mouth, and 6 inches at the top.

My pole for manipulating the basket is sawed or ripped from a 2-inch plank, dressed down to a 2-inch pole, and put a band or ferrule on either end. In the top end I bore a ¼-inch hole in which I insert a rod that will fill it tightly, the point driven and lapped back, enclosing an inch ring in the lap. It should extend 12 inches beyond the pole, with a curve to throw the basket to swing outside, or clear off the pole. In the lower end I bore a half-inch hole, and insert a rod that will fill it, drawn a little to make it sharp, so you can stick it or force it down into the ground. This pole should be from 10 to 14 feet long, to suit the trees from where you expect to capture bees, or you can have two (a shorter and a longer one), then they can be inserted to the height of the pitching place of the bees.

My way of manipulating the pole and basket is as follows: When a swarm commences to issue, I take hold of the pole, snap the basket into the ring in the end of the curved rod on the pole, and plunge the basket into a tub of water. If the swarm is not beginning to cluster, push your bee-skit among the thickest part of the leaves; they will often go right to it and pitch on it; but if not, notice when they begin to pitch and get a small cluster, then apply the basket right against the cluster, and often in three minutes you will have one-half of the swarm on your catcher. Then I gently move my basket from a foot to 15 inches and take hold of the punching or jarring stick that has a piece of thick cloth or soft piece of leather nailed over the end, to save the branch from being barked by the jarring of the bees; those jarred off, in rising, will make for the cluster on the basket. Now having them from the branch, I stick the iron spear into the ground, that is, the lower end of the pole, till all is settled, while I do something else. When all is ready, I lift the pole, lower it, unsnap the basket from the ring, carry it along as I would a basket of cherries to the location of the hive, which sits on a canvass, and there shake off or lift off a small portion of the bees; the bees will spread around as they fall; give 2 or 3 raps on the hive with your fingers. The hearing of the hollow sound warns them of a home, and then the race commences. Now detach a portion more, and by the time these get fairly started, give the basket a sudden shake, putting them all on the canvass in front of the hive.

For 15 years I have captured my swarms in this way, and in that length of time I have never failed to take the swarm on my basket and carry it wherever I wished to. In catching swarms, during 15 years, I have never used a ladder, shears, saw, quart dipper, fountain pump, or large tin pail. It is all right to have tools, but with my way of hiving bees I have no need of them. I think it would take six men and two women to carry them after me, and then not always be in the right place when wanted. In my own yard I have not cut a branch for bees in 15 years, so you see I do not despoil either fruit or shade trees.

Mr. R. Graden, on page 821 of the BEE JOURNAL for 1884, describes his plan of catching swarms similar to mine, but not so convenient or handy, in my opinion. I would say to all—view the different points of convenience laid down in the different articles set forth in the BEE JOURNAL, and then decide which is the lightest, easiest, quickest and safest for fruit trees, of the different plans set forth. If I have in this put an idea into any one's mind that will save labor in the business, I have gained my point.

Manhattan, ó Kans.

For the American Bee Journal.

My Bee-Keeping Experience.

S. H. HARRISON.

I believe I promised a report of my successes and failures during the past year, in a former letter, but failures have been so frequent, and successes so few, I have delayed, hoping for something better.

In the spring of 1884, I took my 10 colonies from the cellar and placed them on the summer stands, all in excellent condition, strong in bees and stores. May 31 the first swarm issued (I let them swarm naturally, divide the brood and save queen-cells), and swarm after swarm followed until July 20, I had 30 colonies. The divided colonies being built up from the brood, etc., of the later swarms. I then started for Minneapolis, Minn., to attend the National re-union of ex-soldiers, expecting my bees to gather in a good supply of honey during my absence; but about July 28, I received a letter from my wife, telling me that on the 25th a terrible wind and hail storm had visited our locality. The hail broke 22 window lights from the north side of our dwelling, and some six days after the children gathered hail from where it had piled up, for the purpose of making ice cream, You see it made things lively.

But the poor bees, where were they? Myriads of them were in the fields, and the storm coming suddenly and severe, hardly a bee outside the hives was spared. The workers nearly all perished, and with them every shrub and flower from which honey could have been gathered, and as there was no honey to gather, it was better for those left in the hives, for all they could do was to consume stores previously gathered. From that time bees did not gather enough stores to live on, and as winter approached, I fed them sugar syrup; but I did not do that as I ought; I fed them outside, and those which needed the most, got the least.

On Nov. 29 I placed them all in the cellar, some in fair condition, others in poor. There was very little breeding in any of the colonies after the storm, hence bees were old and comparatively few in numbers. As winter advanced, it became necessary to feed some. Soon, one died, than another, and when spring opened, I had 19 weak colonies to place on the summer stands. I moved them about one mile from their former stand. I immediately commenced feeding them to stimulate breeding, using rye flour and sugar syrup. They soon gave indications of rapid improvement, and seemed to be doing so well that I began to look for drones, but while I was watching their improvement, etc., with such eagerness and satisfaction, on the morning of May 6 I went out and found water frozen, and ice nearly ⅛ inch thick. On the morning of the 7th ice a little thicker, and on the 8th about as on the 6th.

Early spring flowers and fruit was just coming into bloom. Wild plums, choke-cherries, etc., were in full bloom, and apples, peaches, pears, plums, cherries, etc., were just beginning to bloom. The hard frost killed almost every bud and flower, and my poor bees had nothing to do but to wait for bloom, and consume the stores on hand. But in a few days after that frost, the young drones looked for so anxiously, began to emerge, but as soon as one crowded out of his cell, he was invited outside, and not permitted to return, and many colonies killed the drone larvæ and dragged it all out, so that in less than a week not a drone could be seen. Of course I must feed again, and I continued to feed until in June, before there was enough forage for them to live upon.

In the mean time 2 more colonies died, leaving 17. During the latter part of June and the month of July, they barely gathered enough stores to live upon and keep up brood-rearing. About Aug. 1, drones again appeared, and on the 6th the first swarm of the season came out, and on the 7th another, and I am to-day watching and waiting for others. With the exception of 2 colonies, one queenless and the other might as well be, all are now in excellent condition, and are working in surplus boxes nicely, getting honey mostly from buckwheat, sown expressly for them.

THE SHEEP-BEES CONTROVERSY.

Before I close I wish to say a few words about that famous lawsuit, sheep vs. bees. In the first place, the idea seems ridiculous, as has been

many times illustrated in the columns of the BEE JOURNAL. But what I most want to do now is, to give a few facts coming under my personal observation within the last 48 hours. Early in the spring I sowed a piece of buckwheat for my bees. It had just begun to come up nicely when the frost on May 6, 7 and 8 came on and killed all that was up. That coming up after, left it very thin on the ground, but enough I thought to justify leaving it for awhile at least. It came on, bloomed nicely, and the other day I examined and found considerable matured wheat, and desiring to get rid of the weeds, I decided to plow it under. Although it was full of bloom and bees, on the 6th I started the boy with the team and harrow and gave it a good harrowing, and at a time when the bees were on it the thickest. After a time he came in and said: "Why, the bees are just as thick as they can be on that buckwheat." I asked him if they stung him or the horses. He replied, "no."

Now, Mr. Editor, every man that knows anything about bees, knows that if there is anything in the world that bees will attack, it is a sweating horse. Yet my horses harrowed and plowed that piece of buckwheat with bees on it very thick, without one offering to sting the horse or the boy. The National Bee-Keepers' Union meets with my hearty approval, and I herewith send in my membership fee and first assessment.

Mankato, ♂ Kans., Aug. 8, 1885.

Convention Notices.

☞ The Southern Wisconsin Bee-Keepers' Association will meet at the Court House in Janesville, Tuesday, Aug. 25, 1885, at 10 a. m.
JOHN C. LYNCH, *Sec.*

☞ The Des Moines County, Iowa, Bee-Keepers' Association, will hold its fall meeting at the Court House in Burlington, on Aug. 25, 1885, at 10 a. m. All persons interested in bee-culture are invited to attend.
JOHN NAU, *Sec.*

☞ The Linwood Bee-Keepers' Association will be held at Rock Elm Centre, Wis., on Tuesday, Sept. 1st, at 1 o'clock p. m., in Condit's Hall. All interested are cordially invited to attend, and make the meeting a profitable one. B. J. THOMPSON, *Sec.*

☞ The Western N. Y. and Northern Pa. Bee-Keepers' Association will meet at Salamanca, N. Y., in Odd Fellows' Hall, on Sept. 1 and 2, 1885. A. D. JACOBS, *Sec.*

☞ The next meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rock City, Ills., on Aug. 25, 1885.
J. STEWART, *Sec.*

☞ Owing to a very heavy rain-storm during the forenoon of July 18, the meeting of the Marshall County Bee-Keepers' Association was deferred until Saturday, Aug. 29, 1885, at 10.30 a. m., in the Court House at Marshalltown, Iowa. Subjects: "Fall Management of Bees" and "Care and Sale of Honey." All bee-keepers are invited. It will be a time of rest from other labor, and we hope to have a good meeting.
J. W. SANDERS, *Sec.*

SELECTIONS FROM OUR LETTER-BOX

Wonderful Season for Bees.—Miss Anna Saunders, Woodville, ♀ Miss., on Aug. 5, 1885, writes:

This has been a wonderful season for honey. Up to July 15, there has been no cessation in honey-gathering and brood-rearing. From May 29 to July 30 I extracted seven times, and the combs were filled in 3 or 4 days after, each time.

Bees Not Harmful.—A. E. Manum, Bristol, ☉ Vt., on Aug. 8, 1885, writes:

Some time since I noticed in the BEE JOURNAL a proposition from Mr. James Heddon for the formation of a Bee-Keepers' Union, and I was at once favorably impressed with the idea. The move is a grand one, and should be supported by every bee-keeper in the United States, whether he has one or more colonies. I am well pleased with the officers elected, and I hope that not a leaf will be left unturned that will assist in showing to the world that bees are not as harmful as many suppose.

[Mr. Manum sent two other membership fees with his own. Let others emulate his wise example.—ED.]

Syrian or Holy-Land Bees.—F. J. Ahlers, Cincinnati, ♀ Ohio, makes the following request:

Will some competent person please give a minute description of the physical characteristics of the Syrian or Holy Land bees, and their crosses with the Italians and blacks. Also their action on the combs when removed from the hive, and also when opening the hive. By physical characteristics I mean the markings of the queens, drones and workers, in clear, specific language, not in generalizations, as like Italians only ——. I have purchased reputed pure queens cross-mated with Italian drones. One of the queens I am sure is impure and cross-mated with at least an Italian-black hybrid drone.

Button-Ball, etc.—S. McLees, May, ☉ Mich., on Aug. 5, 1885, writes:

I send a stem and flower (the only one I ever saw of the kind). It grows on low land about 3 feet high, and blossoms about Aug. 1. The flowers last nearly 3 weeks, and it is litterly covered with bees, flies and wasps; the humble-bees in scores remain on it over night. At a distance it resembles a bank of snow; upon going to it, at the first sight and sound, one would think he had found a swarm of bees. Please name it. Is it a good honey plant? I also enclose a piece of mineral. What is it? I also send a piece taken from a rock, that I take for some kind of mineral. Please name it.

[This is button-ball (Cephalanthus occidentalis), and an excellent honey-plant; although it is in bloom at the same time as the linden, it keeps in bloom much longer. Another thing in its favor is the fact of its growing in bogs and fens, and so yields nectar abundantly even in times of severe drouth. It is figured in my Manual on page 283. The mineral is sulphite of iron or iron pyrites, sometimes called appropriately, "fool's gold."—A. J. COOK.]

Boiled Honey for Winter Stores.—Wm. Lossing, Hokah, ☉ Minn., on Aug. 8, 1885, writes:

I wish to know if any bee-keepers have ever boiled fall honey and then fed it for winter stores; if so, with what results. I put into winter quarters 302 colonies and nuclei, and succeeded in losing nearly all of them. May 10 found me with only 67 old queens left, most of them with only two frames of bees and brood. I bought 14, and I now have about 200 good ones and 72 small ones on 3 to 5 frames. I will try to put 250 in this fall. They have gathered about 1,000 pounds of fine white clover and basswood honey.

Sugestions.—Elias Fox, Hillsborough, ☉ Wis., makes the following suggestions:

1. I do not like to dictate in regard to the organization of the Bee-Keepers' National Union, but it seems to me it would be proper to make the assessments in proportion to the number of colonies owned, or the amount of capital invested by each member, and NOT so much per capita.

2. It also seems to me that the General Manager should pay at least 7 per cent. interest on all moneys held by him, and have it credited to each member proportionately. This is merely my suggestions. I should also like to hear from others in regard to this matter.

[The question is, have we a RIGHT to keep bees—not whether we should invest $10 or $100 in the business. It attacks the INDIVIDUAL rights of bee-keepers—hence individual bee-men should unite in the DEFENSE of their pursuit!

2. As to the General Manager being required to pay interest for the money, it seems that our correspondent fails to comprehend the nature of the case. The Assessments are not called for until the money is needed—and the money is subject to call, at a day's notice, to pay the expenses of such defense. It cannot be invested to earn interest, for it can ONLY be used for the purpose for which the fund is created. All the money received by the Manager is in the Bank, and can be checked out at a moment's notice. As the Bank pays no interest on such deposits, would it be REASONABLE to require the Manager to pay interest for funds he cannot use?

The annual fees of 25 cents for each member, creates a "general fund" to cover current expenses. (See Article VIII of printing, postage, etc.) If "interest" is to be expected in addition to "brains," time and manual labor, we fancy the office will "go-a-begging" for some one to take it. Business men do not usually throw away their time, energies and money in that manner.

Gad-Flies and Sheep.—A. S. Goodrich, Worthington, ⊙ Ohio, on Aug. 6, 1885, writes:

I enclose the fees for the Bee-Keepers' Union. I gave the subject at first very little attention, believing there was nothing to defend, but I have reconsidered the matter, and send in my mite. I have kept bees and sheep on the same farm for more than half a century, and my sheep have always driven the bees, not the bees the sheep. Every man of any observation

knows that while bees are foraging they flee from the approach of man or beast, and never make an attack away from home. It is very evident that the plaintiff in the Freeborn case is not much more of a sheep-man than he is of a bee-man, and cannot distinguish between a honey-bee and a gad-fly; the latter are very annoying to sheep. I do not believe there is an intelligent judge or jury in the United States that will render a verdict against Mr. Freeborn! I have had no surplus honey. Bees are consuming what stores they have, and will soon have to be fed or starve.

Good Honey Crop.— Wm. Anderson, Sherman, Mo., on Aug. 10, 1885, writes:

I have extracted 500 pounds of honey from 8 colonies. My bees are not all in movable frame hives. They have done well, and will have plenty of honey to go through the winter with. Even the third swarm that came out from the same hive, has stored nearly enough for winter. As we are having plenty of rain now, they will get plenty I think. I shall have no cause to do any fall feeding, as buckwheat is in full bloom now. My honey yield will be exceedingly good this year. I am very sorry to see that so few of the bee-keepers have joined the Union. "He that will not invest a penny will never have many." Secure yourselves and save dollars.

Insurance.—A. W. Osburn, Cuba, W. I., on July 25, 1885, writes:

I fully agree with you, Mr. Editor, when you say, "This is a wide field," in your comments upon the letter of Chas. Follett, of Osage, Iowa, where he proposes to attach to the National Bee-Beepers' Union an "Insurance Mutual Bee-Keepers' Association." I have no doubt that some sort of a bee-keepers' insurance company may be found advisable or necessary at some future time, but at this time I think it premature. The bee-keepers are not educated up to the necessity of such an organization.

Poor Honey Season.—H. T. Hartman, Freeport, Ills., on Aug. 8, 1885, writes:

We are having the poorest honey season this year that I have known since I commenced bee-keeping. White clover was nearly all winter-killed; this was also an off-year for basswood. I had 70 strong colonies in the spring, which were all fixed for comb honey, but there is hardly anything done in the section, only 4 have swarmed. Last year I had over 3,000 pounds of comb honey in the honey room; there is not 100 pounds in there this year. If I get through with a barrel of sugar this fall, in feeding my bees for winter, I will call it well, yet I hope to make it all up another year.

Strange Notions of Bees.—L. J. Keyes, Nora Springs, Iowa, on Aug. 10, 1885, writes:

I neighbor came to my apiary a few days since for a hive and instructions for securing a colony of bees that had commenced building comb and storing honey under the eaves of his house. The colony was a good sized one, with about 10 pounds of honey stored, and brood in abundance. They were out-of-doors in reality, only being protected from the rain by the projection of the cornice. To smoke them away from the comb, fasten it into the frames of the hive and put the bees in, was an easy task; they are now at work, and apparently well pleased with the change in quarters. I have lost a very valuable queen by trying Mr. Simmins' plan of introducing, on page 472. I may try it again sometime, but with a queen of less value. The honey-flow from white clover and basswood has been abundant this season. Some of my colonies stored 28 pounds each in the supers in eight days besides making new combs. A neighbor of mine (¼ of a mile distant) hived two swarms in one box, that had clustered together, where they remained at work for five days, when a part of them swarmed out again, and were hived in another box. Upon examination each had a queen, and had worked together five days without either being destroyed. Can any of the readers of the BEE JOURNAL account for this strange freak?

Bichloride of Mercury.— J. M. Shuck, Des Moines, Iowa, on Aug. 11, 1885, writes us as follows concerning this as a remedy for the cure of foul brood:

Dr. Agnew, of Haverford College, Pa., (a surgeon of national celebrity), writes me that bichloride of mercury is one of the very best germicidal agents, and has been in use some time. The strength generally employed is one part of the salt to one and two thousand parts of water. He further says there is no such preparation as bichromate of mercury. Mr. Arthur Todd, of Germantown, is also helping me run this thing down, and he will write Mr. Cheshire about it. I hope to get at something tangible before long.

[The remedy named is one of the new mercurial preparations, and is said to have been used in Europe for the cure of foul brood. We are glad Mr. Shuck is endeavoring to get the facts concerning this matter.—ED.]

The National Bee-Keepers' Union.

CONSTITUTION.

ARTICLE I.—This organization shall be known as the "National Bee-Keepers' Union," and shall meet annually, or as often as necessity may require.

ARTICLE II.—Its object shall be to protect the interests of bee-keepers, and to defend their rights.

ARTICLE III.—The officers of this Union shall consist of a President, five Vice-Presidents, and a General Manager (who shall also be the Secretary and Treasurer), whose duties shall be those usually performed by such officers. They shall be elected by ballot, and hold their several offices for one year or until their successors are elected and installed; blank ballots for this purpose to be mailed to every member by the General Manager.

ARTICLE IV.—The officers shall constitute an Advisory Board, which shall determine what action shall be taken by this Union, upon the application of any bee-keepers for defense, and cause such extra assessments to be made upon all the members as may become necessary for their defense.

ARTICLE V.—Any person may become a member by paying to the General Manager an Entrance Fee of ONE DOLLAR to the Defense Fund, and an annual fee of 25 cents, for which he shall receive a printed receipt making him a member of this Union, entitled to all its rights and benefits. The annual fee shall be due on the first day of July in each year, and MUST be paid within 30 days in order to retain membership in this Union.

ARTICLE VI.—Donations of any amount may be made at any time to the Defense Fund, in addition to the entrance and membership fees and the regular assessments made upon the members by the Advisory Board.

ARTICLE VII.—The Defense Fund shall be used for no other purpose than to defend and protect bee-keepers in their rights, after such cases are approved by the Advisory Board, and shall only be subjected to Drafts regularly made in writing by the Advisory Board.

ARTICLE VIII.—The annual fees paid by the members shall become a general fund, from which shall be paid the legitimate expenses of this Union, such as printing, postage, clerk-hire, etc.

ARTICLE IX.—Meetings of this Union shall be held at such times and places as shall be designated by the Advisory Board, or upon the written requisition of ten members.

ARTICLE X.—This constitution may be amended by a majority vote of all the members at any time.

LIST OF MEMBERS AT THIS DATE:

Addenbrooke, W.,
Allen, Ransom,
Anderson, J. Lee,
Anderson, Wm.,
Angell, C. S.,
Baldwin, B. T.,
Barnes, Wm. M.,
Baxter, E. J.,
Bernschein, Ernst,
Besse, H., M. D.,
Bitzer, Wm.,
Bohn, Gustav,
Bray, Moses,
Brickey, Peter,
Buchanan, J. W. & Bro,
Burrell, H. D.,
Burton, L.,
Carder, A.,
Chapman, J.,
Cheney, H. H.,
Clarke, Rev. W. F.,
Connley, John T.,
Cook, Prof. A. J.,
Cripe, Henry,
Dadant, Chas.,
Dadant, C. P.,
Darby, M. E.,
Dayton, C. W.,
Decker, A. A.,
Demaree, G. W.,
Dibbern, C. H. & Son,
Dickason, T. B.,
Dittmer, Gus,
Dodge, U. E.,
Doolittle, G. M.,
Downs, Robert,
Drane, E.,
Dunham, P.,
Dunn, John,
Eaglesfield, E. C.,
Eastwood, L.,
Elwood, Sr., W. R.,
Feathers, Harvey,
Flanagan, E. T.,
England, P. J.,
Follett, Charles,
Forbes, W. E.,
France, E. & Son,
Freeborn, S. I.,
Fulton, W. K.,
Funk, H. W.,
Furness, Dwight,
Gander, A. M.,
Goodrich, A. S.,
Green, Charles H.,
Greening, C. F.,
Gresh, Abel,
Grimm, Christopher,
Harlens, J. G.,
Harrison, S. H.,
Haskin, A. S., M. D.,
Hatch, C. A.,
Havens, Reuben,
Hayhurst, E. M.,
Heaton, J. N.,
Heddon, James,
Hensley, J. P.,
Hettel, M.,
Hill, A. G.,
Hills, Mrs. H.,
Hilton, George E.,
Hoke, Abe,
Hollingsworth, C. M.,
Howard, J. B.,
Hoyle, George H.,
Huse, Wm. H.,
Hutchinson, W. Z.,
Hyne, James M.,
Isham, H. B.,
Jones, George W.,
King, D. N.,
King, T. Frank,
Langstroth, Rev. L. L.,
Lanning, John,
Lawton, B. W.
Le Roy, J. W.,
Lindsly, L.
Ludkey, Charles,
Ludloff, K.,
Maddox, W. T.,
Mallory, S. H.,
Manum, A. E.,
Marden, Henry,
Margrave, J. W.,
Mason, Jas. B.,
Mattoon, Jas.,
McConnell, James,
McCormick, Emery,
McGee, Charles,
McLees, S.,
McNay, Frank,
McNeill, James,
Millard, D.,
Miller, B. J. & Co.,
Miller, Dr. C. C.,
Miller, Henry,
Mills, L. D.,
Minnich, F.,
Minor, N. L.,
Morse, William,
Muth-Rasmussen, Wm.,
Nelson, James A.,
Newman, Alfred H.,
Newman, S. M.,
Newman, Thomas G.
Nipe, James,
Nutt, W. C.,
Parker, D. G.,
Pennoyer, L. A.,
Peters, Geo. B.,
Phelps, N. T.,
Pond, Jr., J. E.,
Powell, E. W.,
Pray, G. L.,
Rainey, Jarvis,
Reed, L.,
Rey, John,
Reynolds, M. G.,
Roberts, Jesse H.,
Root, A. I.,
Rowe, David,
Roye, Burr,
Schaper, E. F.,
Scheuring, Paul,
Seabright, L. C.,
Secor, Eugene,
Shapley, D. L.,
Shearman, J. O.,
Shirley, W. H.,
Smith, George,
Snell, F. A.,
Spady, Jno.,
Spencer, M. L.,
Stearns, J. R.,
Stephenson, H. W.,
Stephens, W. B.,
Stewart, W. H.,
Stocker, Wm. S.
Stolley, Wm.,
Storer, E. M.,
Talbert, M.,
Taylor, George,
Thatcher, Will.,
Theilmann, C.,
Thompson, Geo. M.,
Tinker, Dr. G. L.,
Tongue, L. N.,
Travis, F. W.,
Travis, I. A.,
Trimberger, John,
Turner, T. E.,
Tyner, Alonzo,
Vanhouten, C. W.,
Viallon, P. L.,
Walton, Col. R.,
Webster, H. S.,
Weeks, C.,
Wendt, Henry,
Whitney, W. V.,
Wicherts, A.,
Wilkins, Miss Lucy A.,
Wolcott, Wm. C.,
Wright, W. D.,
Zwiener, H. L.

WEEKLY EDITION
OF THE
AMERICAN
BEE JOURNAL
PUBLISHED BY
THOMAS G. NEWMAN & SON,
PROPRIETORS,
923 & 925 WEST MADISON ST., CHICAGO, ILL.
Weekly, $2 a year; Monthly, 50 cents.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

Make all Money Orders and Postal Notes payable at Chicago, Ills.—Some country postmasters insist on making such payable at some sub-station of Chicago, but we want them drawn on the *main office*.

☞ If your wrapper-label reads Aug. 85, please remember that your subscription runs out with this month. Renew at once, so as not to lose any numbers.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

☞ For two subscribers for the Weekly BEE JOURNAL (or 8 for the Monthly) for one year, we will present a Pocket Dictionary, and send it by mail, postpaid.

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview by sending the names to this office, or we will send them all to the agent.

☞ We want one number each of the BEE JOURNAL of August, 1866—February, 1867. Any one having them to spare will please send a Postal Card. We will pay 50 cents for one copy of each of the two numbers.

☞ **Preserve your papers** for reference If you have not got a Binder we will mail you one for 75 cents, or you can have one FREE if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

☞ Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again."

Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,
Monday, 10 a. m., Aug. 17, 1885.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY—Receipts of comb honey are coming more freely, and the demand is about equal to it. Yet 15c per pound is all that can be obtained. Extracted honey ranges from 5@8c for the different grades and styles of packages.
BEESWAX—22@23c.
R. A. BURNETT, 161 South Water St.

BOSTON.

HONEY.—We quote the following prices: Fancy white comb in 1-lb. sections, 16@18c.; the same in 2-lb. sections, 14@15c; fancy white California 2-lbs., 12@14c. Extracted weak, 6@8c. Sales very slow.
BEESWAX.—30 cts. per lb.
BLAKE & RIPLEY, 57 Chatham Street.

NEW YORK.

HONEY—The honey market is very quiet, and will continue so until fall trade opens up. Some old stock is on the market yet, with small shipments of new comb honey arriving. Southern extracted honey is coming in very freely. Quotations are as follows for comb honey: Fancy white in 1-lb. sections, 14@15c; fair to good in 1-lb. sections, 12@13c; fancy white in 2-lb. sections, 13@14; fair to good in 2-lb. sections, 11@12c; fancy buckwheat in 1-lb. sections, 9@10c; fancy buckwheat in 2-lb. sections, 7@8c. Extracted white clover, 6@7; buckwheat, 5@6c; Southern, per gallon, 55@65c.
BEESWAX—Prime yellow, 25@28c.
MCCAUL & HILDRETH BROS., 34 Hudson St.

CINCINNATI.

HONEY—The market is quiet with fair demand for extracted, and an abundance of offerings from commission houses and producers. Prices range between 4@8c on arrival. There is but little new comb honey in the market, with an occasional demand. Prices nominal.
BEESWAX—is in fair demand with liberal offerings, and brings 20@24c on arrival.
C. F. MUTH, Freeman & Central Ave.

SAN FRANCISCO.

HONEY.—New comb honey sells slowly because of last year's crop now on hand. We now quote—Extracted, old dark 4½c.; new white, 5½@6 c.; dark, 4½@5c. No extra white coming forward.
BEESWAX—Quotable at 23c.—wholesale.
O. B. SMITH & CO., 423 Front Street.

CLEVELAND.

HONEY—Is very dull just now during strawberry time, and although we hold at 14@15c per lb. best white 1-lb. sections, it is merely nominal, as there are no transactions. As soon as our people have satisfied their craving for acid fruits, they take very kindly to nice white honey, and we may look with confidence to a good demand in July, August and September.
BEESWAX.—Scarce at 28@30.
A. C. KENDEL, 115 Ontario Street.

KANSAS CITY.

HONEY—Trade in this article is very quiet just now. Nothing sells at this time of year except extracted honey, in bulk and small glasses and tins of honey. Some large sales of extracted this week at 5@6c for southern, and 6@7c for clover and sage. Comb honey nominal, at 12@13c for choice white 2-lb. sections, and 13@14c for 1-lb.
BEESWAX—Weak at 20@25c.
CLEMONS, CLOON & CO., cor. 4th & Walnut.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, $2.50. Five hundred will be sent postpaid for $10.00; or 1,000 for $15,00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

Local Convention Directory.

1885.	*Time and place of Meeting.*
Aug. 25.—	Southern Wisconsin, at Janesville, Wis. John C. Lyneh, Sec.
Aug. 25.—	Des Moines Co. Iowa, at Burlington, Ioa. John Nau, Sec.
Aug. 25.—	N. W. Ill. and S. W. Wis. at Rock City, Ill. J. Stewart, Sec., Rock City, Ills.
Sept. 1.—	Linwood, at Rock Elm Centre, Wis. B. J. Thompson, Sec., Waverly, Wis.
Sept. 1, 2—	W. N. Y. and N. Pa., at Salamanca, N.Y. A. D. Jacobs, Sec., Jamestown, N. Y.
Sept. 3.—	Eastern Indiana, at Richmond. M. G. Reynolds, Sec.
Dec. 8—10.—	Michigan State, at Detroit, Mich. H. D. Cutting, Sec., Clinton, Mich.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Advertisements.

100 Hives and Supers
FOR SALE CHEAP.

The Frames are filled with combs — all are complete and in good order, having been in use only one year. Make me an offer. Also **160 pounds** of Dadant's Brood **COMB FOUNDATION**, in original packages.
GEO. B. ENGLE, Jr.,
cor. Clinton & Quincy Sts., Chicago, Ills.

Fruit-Farm & Apiary
FOR SALE CHEAP!

96 ACRES, hill-land, ½ well-stocked with apples, peaches, pears, plums, quinces, grapes, and small fruit, in fine bearing condition. The remainder in pasture, grass, grain, etc. Apiary contains **140 ITALIAN COLONIES** in Langstroth hives. Bee-house and all modern appliances for apiculture, in as good location for bees and honey as can be found. Good 10-room house, beautifully located, commanding a view of the city, river and surrounding country. New barn and out-buildings, cistern, never-failing springs, etc. Reason for selling—age and ill-health.
33A6t S. A. STILLMAN, LOUISIANA, MO.

"PRIZE QUEENS!"

ITALIAN QUEENS, tested, warranted, and fertilized, for sale at usual prices. Also Nuclei colonies, 2 frames each. Send for Circular. Dollar Queens ready to ship on one week's notice.
27D6t E. L. BRIGGS, Wilton Junction, Iowa.

THE HORSE,
By B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; cause and treatment of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.
Price 25 cents—in English or German.
THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

30 COLONIES of BEES
for one-hundred dollars, in American hives; or $3.50 each, singly. They are strong in bees and honey. Syrians and Italians. Safe arrival guaranteed.
33A4t FAYETTE LEE, Cokato, Minn.

My 17th Annual Price-List of Italian, Cyprian and Holy-Land Bees Queens and Nuclei colonies (a specialty); also Supplies—will be sent to all who send their names and addresses. H. H. BROWN,
17Dtf Light Street, Columbia County

EXCELSIOR
HONEY EXTRACTORS

In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, we have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the $16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the $8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The $8.00 and $10.00 Extractors have no covers.

For 2 American frames,	13x13	inches		$8 00
For 2 Langstroth	"	10x18	"	8 00
For 3 "	"	10x18	"	10 00
For 4 "	"	10x18	"	14 00
For 2 frames of any size,	13x20		"	12 00
For 3 "	"	13x20	"	12 00
For 4 "	"	13x20	"	16 00

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

Bees and Queens

HAVING purchased all the black bees within a radius of 6 miles, I now claim the LARGEST ITALIAN APIARY and best location for rearing FINE QUEENS in the State. I will continue to sell warranted Queens at the low price of **75 cents** each. Extra selected tested (1885 rearing) **$1.50** each. Three L-frame Nuclei, every frame filled with brood, with selected tested Queen, **$3** each.

Address JAS. WOOD, North Prescott, Mass.
29A9t

WIN more money than at anything else by taking an agency for the best selling book out. Beginners succeed grandly. None fail. Terms free. HALLETT BOOK CO.
51A1y Portland, Maine.

Wooden Pails for Honey!

WE can furnish regular Wooden Water-Pails—well painted on the outside, and with 3 iron hoops and a tight-fitting wood cover, at **$2.25** per dozen. They will hold **25** lbs. of honey, and when empty, can be utilized for use as an ordinary household pail.

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, CHICAGO, ILL.

R. HYDE, Alderly, Dodge Co., Wis., will send you full colonies of **ITALIAN BEES** in 8-frame Langstroth hives for $3.00 each. Satisfaction guaranteed. Order early. 31A2t

Sweet Clover
—FOR—
BEE PASTURAGE.

IT MAY be sown on all waste places at any time, and will grow on any soil—in any climate. Price, 20 cents per pound; $2.75 per peck; $10.00 per bushel (60 lbs.)

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column

Bee-Keepers' Badges at Fairs.

We have some **ELEGANT RIBBON BADGES,** having a rosette and gold Bee, for bee-keepers' use at Fairs, Conventions, etc. Price 50 cents each, by mail, postpaid.

Address, **THOMAS G. NEWMAN,**
925 West Madison St., CHICAGO, ILL.

QUEENS by Return Mail!
AT THE FOLLOWING LOW RATES:

Bred from my **Best Strains** of **Italians** and **Albinos!**

Untested Queens.....	.....each	....	$ 1 00
" "	.....½ doz....		5 50
" "	.....1 "		10 00
Warranted "	.....each	....	1 10
" "	.....½ doz....		6 00
" "	.....1 "		11 00
Tested "	.....each	....	2 00
Selected Tested Queens.....	"	....	2 50

Descriptive Price-List free. Address all orders to

WM. W. CARY, - Coleraine, Mass.,
(Successors to Wm. W. Cary & Son.)

N. B.—On a single order for 50 Queens, we will give **10 per cent. discount** from the above list. 29Atf

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

LOS ANGELES.
HOMES IN SOUTHERN CALIFORNIA.

"Stern winter smiles on that auspicious clime,
The fields are florid with unfading prime;
From the bleak pole no winds inclement blow,
Mould the round hail or flake the fleecy snow;
But from the breezy deep the bless'd inhale,
The fragrant murmurs of the western gale."
—Homer.

FULL information concerning the garden spot of the world, beautiful LOS ANGELES, THE LIVELIEST AND MOST PROSPEROUS SECTION OF THE PACIFIC COAST, furnished by the Los Angeles **72** column best weekly **Weekly Mirror** a mammoth PAPER, the in California SEND FOR IT. Single copy, three two-cent stamps; six months, **$1**; one year, **$2.**

Address THE TIMES-MIRROR CO.,
25A13t Los Angeles, Calif.

SYSTEMATIC AND CONVENIENT.

DAVIS' PATENT HONEY CARRIAGE,
REVOLVING COMB-HANGER,
Tool Box and Recording Desk Combined.

Price, complete, only.....$18.00.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

100 COLONIES OF BEES for SALE at **$5.00** each, in Baldwin Hives (frames 10x13 in.) They are nice Italians. Also a few hybrids for sale. JONATHAN GEORGE, Independence, Mo.
32A2t

BROWN GERMANS.—A limited number of fine Queens of this race for sale at 35 cts. each.
32A2t **W. G. FISH,** ITHACA, N. Y.

THE BRITISH BEE JOURNAL
AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is published SEMI-MONTHLY, at Seven Shillings per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it.

The British Bee Journal and our Weekly for $3.50: with our Monthly, $2.00 a year.

BEES and HONEY,
OR THE
Management of an Apiary for Pleasure and Profit; by
THOMAS G. NEWMAN.
Editor of the Weekly Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition.

PRICE—Bound in cloth, $1.00; in paper covers, 75 cents, postpaid.

☞A Liberal Discount to Dealers, by the Dozen or Hundred.

☞ The Monthly BEE JOURNAL for a year and the bound book, "Bees and Honey," will be sent for $1.25.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Queens by Return Mail!
ANYBODY
can introduce a Queen successfully by our **NEW INTRODUCING CAGE.** A Cage with full directions for using sent to each purchaser of a Queen. During the balance of the season, we will have only Syrians and fine Italian Queens for sale.

PRICES:

WARRANTED,	SELECT,	TESTED,
$1.00.	$1.25.	$1.50.

Tested Queen and third edition of Bee-Keepers' Handy Book, $2.00. This offer holds good only till Oct. 1st, 1885. Handy Book without Queen, $1.50.

32Atf **HENRY ALLEY, Wenham, Mass.**

POULTRY AND BEES
TWO PAPERS for the PRICE of ONE.

THE POULTRY JOURNAL is a beautifully printed and illustrated 32-page Monthly, devoted to the breeding and management of Poultry, Pigeons, Rabbets and Dogs, at $1.25 a year. C. J. WARD, editor and proprietor.

We will send the "Poultry Journal" and the "Monthly Bee Journal" for one year, both for **ONE DOLLAR.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

A NEW BEE-VEIL.

There are five cross bars united by a rivet through their center at the top. These bars are buttoned on to studs on the neck-band. The bars are of best light spring steel; the neck-band of best hard spring brass; the cover is of handsome light material. It is very easily put together, no trouble to put on or take off, and folds compactly in a paper box 6x7 inches by one inch deep. There would be no discomfort in wearing it either day or night, and the protection against Mosquitoes, Flies, Bees, Gnats, etc., is perfect. The weight of the entire Veil being only five ounces. **Price, by Mail or Express, $1.00.**

Special discount to dealers, on ½ dozen or larger quantities.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.